

**REMARKS**

In the Office Action, claims 9-12 and 14-20 are rejected. With this paper, claims 9, 12, 14, 15 and 17-19 are amended, claims 10 and 20 are canceled and none are added. The application now includes 9 claims.

**Claim Rejections under 35 USC §103**

On page 2 of the Office Action, claims 9-11, 12, and 15-20 are rejected under 35 USC §103(a) as being unpatentable over Rydbeck (U.S. Patent 6,922,567, Rydbeck hereinafter) and in further view of Rankin (U.S. Publication 2003/0119530, Rankin hereinafter) and Hunzinger (U.S. Patent 6,957,076, Hunzinger hereinafter).

The Applicant respectfully submits that the present invention as now claimed is distinct with regard to the prior art. In the present invention, a mobile device provides a location-based function such as presenting a message. The mobile device monitors a property of a wireless communication network. The monitored property may be signal strength of a base station of the network. The device only performs a positioning procedure to determine the position of the device if (1) there is a change in the signal strength or the like; and (2) the device is within an area identified by a cell identifier, and the location based function is connected to the area.

The above features of the invention, as a whole, are not found in any of the references, either taken alone or combined.

As the Examiner already acknowledged, the first reference, Rydbeck, fails to teach the following limitations in claim 1:

determining whether to conduct a positioning of the device based on the at least one property of the wireless communication network,

wherein the at least one property comprises a signal strength of a base station of said wireless communication network, said signal strength is measured at intervals, and at least information on changes in the signal strength is utilized in determining whether to conduct the positioning,

and wherein the device is in an area of a cell to which the location based function is connected is determined by a cell identifier, and information on the base station signal strength is used for determining whether to conduct the positioning only when the device is in the area of the cell identified by said cell identifier.

The second reference, Rankin, provides a method for power saving in a mobile device. The mobile device detects and receives data from a beacon device when the mobile device is within a predetermined range from the beacon device. The current location of the mobile device is determined by various positioning techniques (para. [0020]), and the current position is compared with stored location data for some of the beacon devices. If the distance between the mobile device and a beacon device is longer than a predetermined value, the mobile device is set not to communicate with the beacon device to avoid unnecessary scanning of beacon signals.

In other words, in Rankin, it is assumed that each beacon device covers a particular area. The purpose of the positioning of the mobile device is for determining which beacon device does not cover the area the mobile device is currently in, so that the communication with that beacon device can be disabled. Rankin does not teach a location based function that is connected to a area within a cell.

In the present invention, however, the positioning of the mobile device is not for determining whether it is in a particular area covered by a particular base station, it is for determining whether to activate a location-based function. As it is indicated in Figs. 1a and 1b of the instant application, the location-based function only relates to a particular location L1, which is a small area in comparison with an area (cell) covered by a base station. The mobile device monitors e.g. signal strength of base stations, it does not perform the positioning procedure unless there is a change in a signal strength (indicating that the mobile device has left its previous location) and it is within an area (identified by a cell ID) that the location-based function is connected to (*i.e.* the mobile device has already known it is within an area covered by a base station, but it does not know if it is nearby the location related to the location-based function).

In addition, Rankin teaches NOT to monitor the signals of beacon devices in order to save battery power of the mobile device.

Therefore, Rankin is silent on:

monitoring at least one property of a wireless communication network,  
wherein the at least one property comprises a signal strength of a base station of  
said wireless communication network, said signal strength is measured at intervals, and  
at least information on changes in the signal strength is utilized in determining whether to  
conduct the positioning,

and wherein the device is in an area of a cell to which the location based function is connected is determined by a cell identifier, and information on the base station signal strength is used for determining whether to conduct the positioning only when the device is in the area of the cell identified by said cell identifier.

The third reference, Hunzinger, discloses a system that allows a user of a wireless mobile terminal to set up actions such as reminders, alerts, etc. to be triggered based on the location or dynamics of the terminal. The system monitors the movement of the terminal until the programmed conditions are satisfied. Once the conditions are satisfied, the system triggers the programmed action. The system may monitor the current location periodically or whenever a significant change such as a call is made or a hand-off has occurred (col. 4, lines 39-42). The programmed action is triggered when both the location matches the stored location and the direction matches the stored trigger information (col. 4, lines 46-49). It is also disclosed that the mobile terminal may use location information such as base station ID, neighbor list, CDMA pilot PN offset, multi-path signal conditions or other signal conditions, GPS, FLT, or any other location identifying information (col. 4, lines 3-8).

In Hunzinger, the position of the mobile terminal is monitored regardless of how remote the mobile device is to the stored location. For example in Fig. 3, the mobile terminal is monitored within the Area A, in which a stored position 300 is located, as well as in Area B, which is all the area outside the Area A. The locations of the mobile terminal in the Area B, e.g. locations 304 and 308, are monitored. Whereas in the present invention, the positioning of the mobile device is only performed when the mobile device is inside a cell (like the Area A), in which a location based function is related (like the location 300 in Area A). If the mobile device is outside the cell (like in the Area B), the positioning of the device is not performed in order to reduce the power consumption.

Therefore, Hunzinger does not teach:

wherein the at least one property comprises a signal strength of a base station of said wireless communication network, said signal strength is measured at intervals, and at least information on changes in the signal strength is utilized in determining whether to conduct the positioning,

and wherein the device is in an area of a cell to which the location based function is connected is determined by a cell identifier, and information on the base station signal

strength is used for determining whether to conduct the positioning only when the device is in the area of the cell identified by said cell identifier.

Based on the foregoing, none of the references teach all the limitations of the present invention as recited in the independent claims. Moreover, the combination of cited references also fails to teach all the limitations of the present invention as recited in the independent claims. Accordingly, the present invention is not obvious over Rydbeck in view of Rankin and Hunzinger. Therefore, the independent claims 9, 12, 15, 17 and 18, and all the dependent claims thereof, are believed to be patentable. Applicant respectfully requests the rejections of these claims be reconsidered and withdrawn.

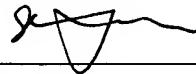
On page 5 of the Office Action, claim 14 is rejected under 35 USC §103(a) as being unpatentable over Rydbeck, Rankin and Hunzinger and further in view of Lock *et al* (U.S. Patent 6,728,528).

Claim 14 depends on claim 12. Since claim 12 is believed to be patentable for the reasons presented above, it is believed that claim 14 is patentable due to its dependency. Applicant respectfully requests the rejection of claim 14 be reconsidered and withdrawn.

### **Conclusion**

For all the foregoing reasons, it is believed that all of the claims of the application are allowable, and their passage to issue is earnestly solicited. Applicant's agent urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

Respectfully submitted,



\_\_\_\_\_  
Shiming Wu  
Agent for Applicant  
Registration No. 56,885

Dated: Nov. 27, 2006

WARE, FRESSOLA, VAN DER SLUYS  
& ADOLPHSON LLP

Bradford Green, Building Five  
755 Main Street, P.O. Box 224  
Monroe, CT 06468  
Telephone: (203) 261-1234  
Facsimile: (203) 261-5676  
USPTO Customer No. 004955